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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,959	10/15/2003	W. Steven Conner	42P16717	8800

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EXAMINER	
YANG, CLARA I	

ART UNIT	PAPER NUMBER
2635	

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/686,959	CONNER ET AL.	
	Examiner	Art Unit	
	Clara Yang	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Objections

1. Claim 3 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 3 calls for the wireless communication system of claim 1 to coordinate one or more aspects of wireless data communication. Claim 1, however, already calls for a processor of the wireless communication system to coordinate one or more aspects of wireless data communication via a wireline network.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Lueker et al. (US 6,130,896).

Referring to claims 1, 5, 6, and 8, as shown in Fig. 1, Lueker teaches a wireless communication system formed by access points (AP) 54 and 56, portable computer 38, an info pad 40 (such as a personal digital assistant), and combination telephone 42 (see Col. 2, lines 58-61). Each access point, as shown in Figs. 2 and 3, comprises: (a) physical layer circuitry 62 (i.e., wireless transceiver) for transmitting radio frequency (RF) signals to and receiving RF signals from untethered devices (hereinafter referred to as "wireless devices"), such as portable computer 38, an info pad 40, and combination telephone 42 (see Col. 2, lines 58-61 and 66-67;

and Col. 3, lines 1-3 and 33-35), as called for in claims 1 and 6; (b) antenna 64 coupled to physical layer circuitry 62 (see Col. 2, line 67 and Col. 3, lines 1-3 and 33-35), as called for in claims 1 and 8; (c) physical layer circuitry 78 (i.e., a wireline transceiver that is a power line transceiver) for transmitting and receiving information over power line network 10 (see Col. 3, lines 27-32 and 36-41), as called for in claims 1, 5, and 6; and (d) microprocessor 84, which performs the operations of medium access controllers (MAC) 66 and 74 and router 70, coupled to physical layer circuitry 62 and physical layer circuitry 78 (see Col. 3, lines 4-19 and Col. 4, lines 7-9), as called for in claims 1 and 6. Per Lueker, each AP exchanges data via RF signals with wireless devices and communicates control messages with other APs via power line 14 to coordinate at least one aspect of the wireless communication with wireless devices to avoid two or more APs communicating with the same wireless device (see Col. 2, lines 58-61 and Col. 5, lines 18-39), as called for in claims 1 and 6.

Regarding claim 2, as explained in the preceding rejection of claims 1, 5, 6, and 8, Lueker's wireless communication system comprises wireless APs 54 and 56.

Regarding claim 3, the limitation is already called for in claim 1, which is taught by Lueker as explained in the preceding rejection of claims 1, 5, 6, and 8.

Regarding claims 4 and 7, as it is known to those of ordinary skill in the art, the term "Quality of Service" (QoS) refers to a broad collection of networking technologies and techniques for providing guarantees on the ability of a network to deliver predictable results. Lueker teaches that each APs performs a point coordination operation with other APs to ensure that each wireless device is assigned to only one AP (i.e., one aspect of wireless data communication to be coordinated) to avoid incorrect results, wherein the point coordination involves each AP communicating with each other to decide which AP is assigned to which

wireless device (see Col. 5, lines 11-39); it is understood that the point coordination (i.e., exchange of information) is related to the enforcement of a QoS because ensuring that each wireless device is assigned to only one AP improves throughput on the LAN by reducing traffic and avoids undesired results, such as a printer receiving a wireless device's print command from two different APs and printing twice.

Referring to claims 9-12 and 14, Lueker's communication system, as shown in Fig. 1, comprises: (a) power line network 10 (see Col. 2, lines 31-34), as called for in claims 9 and 10; and (b) APs 54 and 56 (i.e., wireless nodes) coupled to power line network 10 via power line 14, wherein each AP communicates data messages with wireless devices (i.e., other wireless nodes) via RF signals and communicates control messages with other APs via power line 14 to ensure that each wireless device is assigned to only one AP (i.e., coordinate one or more aspects of the communication of messages over the wireless channel) (see Col. 2, lines 58-61 and Col. 5, lines 11-39), as called for in claims 9, 11, 12, and 14.

Regarding claims 13 and 15, Lueker teaches the each AP exchanges information with each other, wherein the information is related to the enforcement of a QoS, as explained in the rejection of claims 4 and 7.

Referring to claims 16 and 17, as shown in Figs. 2 and 3, Lueker's AP (i.e., article) comprises a storage medium for storing software that enables microprocessor 84 to perform operations such as error checking, translating, communicating data messages via RF signals, routing signals from an RF protocol to a power line protocol and vice versa, and communicating one or more control messages via power line 14 (i.e., wireline) to ensure that each wireless device is assigned to only one AP (i.e., coordinate one or more aspects of the

communication of messages over the wireless channel) (see Col. 2, lines 58-61; Col. 3, lines 4-19 and 27-41; Col. 4, lines 7-9; and Col. 5, lines 11-39).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Fisher et al. (US 5,994,998) teach a wireless AP that is connected to a communications network via a network cable that carries both data and power.
- Kudoh et al. (EP 1 061 694 A2) teach at least two wireless APs, wherein each AP is connected to a wired local area network (LAN) and is able to communicate with other APs via RF signals.
- Beukema (US 6,243,413) teaches a wireless AP having an antenna, a wireless transceiver, a power line transceiver, and a processor connected to the wireless transceiver and the power line transceiver.
- Juitt et al. (US 2003/0087629) teach a network comprising a plurality of APs (i.e., wireless transceivers) and a gateway server having a wireline transceiver and a processor that is connected to the APs and the wireline transceiver, wherein the gateway server transmits control messages to the APs via a wireline in order to control an aspect of wireless communication.
- Noel, Jr. (US 2004/0095888) teaches a network, wherein each AP maintains a connectivity/routing table that is exchanged with other APs.
- Beach et al. (US 2004/0192227) teach a wireless AP that can receive control and configuration messages via a power line.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clara Yang whose telephone number is (571) 272-3062. The examiner can normally be reached on 8:30 AM - 7:00 PM, Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (571) 272-3068. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CY
20 December 2005

BRIAN ZIMMERMAN
PRIMARY EXAMINER